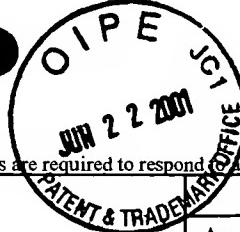


Please type a plus sign (+) inside this box →



PTO/SB/8B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Rufi Y #7
Complete if Known

RECEIVED

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	1	of	3	Attorney Docket Number	A-64077-2/RFT/RMS/BTC
-------	---	----	---	------------------------	-----------------------

JUN 27 2001

1600/290

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
<i>SS</i>	1	PANYUTIN and HSIEH, "Formation of a Single Base Mismatch Impedes Spontaneous DNA Branch Migration," J. Mol. Biol., 230:413-424 (1993).	
<i>D</i>	2	REDDY et al., "Human Rad52 protein promotes single-strand DNA annealing followed by branch migration," Database Medline--NLM, Mutation Research 377(1):53-59 (Abstract), Netherlands, AN 97363253 (Jun. 1997).	
<i>11</i>	3	NEW et al., "Rad52 protein stimulates DNA strand exchange by Rad51 and replication protein A," Nature (London), 391:401-410 (Jan. 1998).	
<i>11</i>	4	OGAWA, T., et al., "A Species-Specific Interaction of Rad51 and Rad52 Proteins in Eukaryotes", Adv. Biophys. vol. 31:93-100 (1995).	
<i>47</i>	5	PARK, M.S., et al., "Physical Interaction Between Human RAD52 and RPA is Required for Homologous Recombination in Mammalian Cells", The Journal of Biol. Chem. vol. 271(31):18996-19000 (1996).	
<i>47</i>	6	SHEN, Z., et al., "The Human and Mouse Homologs of the Yeast RAD52 Gene: cDNA Cloning, Sequence Analysis, Assignment to Human Chromosome 12p 12.2-p13, and mRNA Expression in Mouse Tissues", Genomics 25:199-206 (1995).	
<i>key</i>	7	BENDIXEN, C., et al., "Identification of a Mouse Homologue of the Saccharomyces cerevisiae Recombination and Repair Gene, RAD52", Genomics 23:300-303 (1994).	
<i>11</i>	8	OGAWA, T., et al., "RecA-like Recombination Proteins in Eukaryotes: Functions and Structures of RAD51 Genes", Cold Spring Harbor Symposia on Quantitative Biology, vol. LVIII:567-576 (1993).	
<i>11</i>	9	PARK, M.S., "Expression of Human RAD52 Confers Resistance to Ionizing Radiation in Mammalian Cells", The Journal of Biological Chemistry, vol. 270(26):15467-15470 (1995).	
<i>11</i>	10	BEZZUBOVA, O.Y., et al., "Identification of a Chicken RAD52 Homologue Suggests Conservation of the RAD52 Recombination Pathway Throughout the Evolution of Higher Eukaryotes", Nucleic Acids Research 21(25):5945-5949 (1993).	
<i>11</i>	11	SMITH, J., et al., "A Mutation in the Gene Encoding the Saccharomyces cerevisiae Single-Stranded DNA-Binding Protein Rfa1 Stimulates a RAD52-Independent Pathway for Direct-Repeat Recombination", Molecular and Cellular Biology, vol. 15(3):1632-1641 (1995).	
<i>11</i>	12	SUGAWARA, N., et al., "DNA Structure-Dependent Requirements for Yeast RAD Genes in Gene Conversion", Nature, vol. 373:84-86 (1995).	
<i>11</i>	13	RATTRAY, A.J. et al., "Use of a chromosomal Inverted Repeat to Demonstrate that the RAD51 and RAD52 Genes of Saccharomyces cerevisiae Have Different Roles in Mitotic Recombination", Genetics 138:587-595 (1994).	

Examiner Signature	<i>Matthew Sandals</i>	Date Considered	12/17/01
--------------------	------------------------	-----------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English Language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

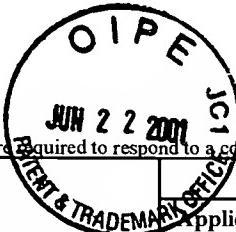
Please type a plus sign (+) inside this box →

PTO/SB/8B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.



Substitute for form 1449B/PTO

47
Complete if Known

RECEIVED

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	2	of	3	Attorney Docket Number	A-64077-2/RFT/RMS/BTC
-------	---	----	---	------------------------	-----------------------

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T ²
<i>g</i>	14	HAYS, S.L., et al., "Complex Formation in Yeast Double-Strand Break Repair: Participation on Rad51, Rad52, Rad55, and Rad57 Proteins", Proc. Natl. Acad. Sci. USA, Genetics vol. 92:6925-6929 (1995).			
<i>s</i>	15	SHINOHARA, A., et al., "Homologous Recombination and the Roles of Double-Strand Breaks", TIBS 20:387-391 (1995).			
<i>h</i>	16	JOHNSON, R.D., et al., "Functional Differences and Interactions Among the Putative RecA Homologs Rad51, Rad52, and Rad57", Molecular and Cellular Biology 4843-4850 (1995).			
<i>m</i>	17	MILNE, G.T., et al., "Dominant Negative Alleles of RAD52 Reveal a DNA Repair/Recombination Complex Including Rad51 and Rad52", Genes & Development 1755-1765 (1993).			
<i>n</i>	18	ADZUMA, K. et al., "Primary Structure of the RAD52 Gene in Saccharomyces cerevisiae", Molecular and Cellular Biology vol. 4(12):2735-2744 (1984).			
<i>m</i>	19	DONOVAN, J.W., et al., "Homotypic and Heterotypic Protein Associations Control Rad51 Function in Double-Strand Break Repair", Genes & Development 2552-2562 (1994). <i>Vol. 16</i>			
<i>m</i>	20	SHEN, Z., et al., "Specific Interactions Between the Human RAD51 and RAD52 Proteins", The Journal of Biological Chemistry vol. 271(1):148-152 (1996).			
<i>m</i>	21	KLEIN, H.L., "Genetic Control of Intrachromosomal Recombination", BioEssays vol. 17(2):147-159 (1995).			
<i>s</i>	22	HABER, J.E., "In vivo biochemistry: Physical monitoring of recombination induced by site-specific endonucleases", BioEssays vol. 17(7):609-620 (1995).			
<i>m</i>	23	MORTENSEN et al. DNA strand annealing is promoted by the yeast Rad52 protein. PNAS (USA) vol. 93:10729-10734, Oct. 1, 1996.			
<i>s</i>	24	SUGAWARA et al. Characterization of double-strand break-induced recombination: Homology requirements and single-stranded DNA formation. Mol. Cell. Biol. vol. 12(2):563-575, Feb. 1992.			
<i>m</i>	25	MURIS et al. Cloning of human and mouse genes homologous to Rad52, a yeast gene involved in DNA repair and recombination. Mut. Res., DNA Repair. vol. 3315:295-305, Dec. 1994.			

Examiner Signature	<i>Walter Sandus</i>	Date Considered	<i>12/17/01</i>
--------------------	----------------------	-----------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English Language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box →



PTO/SB/8A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known

RECEIVED

(use as many sheets as necessary) Examiner Name SANDALS, W.

Sheet	3	of	3	Attorney Docket Number	A-64077-2/RFT/RMS/BTC
-------	---	----	---	------------------------	-----------------------

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Examiner Signature	William Sanders	Date Considered	12/17/01
-----------------------	-----------------	--------------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English Language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.